

DERWENT-ACC-NO: 1998-496969
DERWENT-WEEK: 199935
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TITLE: Corrosion protective coating especially of nuclear plant component -
by
surface oxidation and application of foreign oxide layer

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PATENT-ASSIGNEE: SIEMENS AG[SIEI]

PRIORITY-DATA: 1997DE-1021080 (May 20, 1997)

PATENT-FAMILY:

| PUB-NO | PUB-DATE | LANGUAGE | PAGES | |
|----------------|-------------------|----------|-------|------|
| MAIN-IPC | | | | |
| DE 19721080 C1 | October 1, 1998 | N/A | 003 | G21C |
| 003/07 | | | | |
| WO 9853114 A1 | November 26, 1998 | G | 000 | C23C |
| 008/80 | | | | |

DESIGNATED-STATES: JP US AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

APPLICATION-DATA:

| PUB-NO | APPL-DESCRIPTOR | APPL-NO | APPL-DATE |
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| DE19721080C1 | N/A | 1997DE-1021080 | May 20, 1997 |
| WO 9853114A1 | N/A | 1998WO-DE01340 | May 14, 1998 |

INT-CL (IPC): C23C008/80; G21C003/07 ; G21C003/20 ; G21C003/324 ;
G21C013/087

ABSTRACTED-PUB-NO: DE19721080C

BASIC-ABSTRACT: A method of covering a component, preferably of a nuclear installation (especially a BWR), with a corrosion inhibiting foreign oxide layer of a group 4b metal (especially zirconium and/or titanium) oxide involves oxidising the component surface region prior to applying the foreign oxide layer. Preferably, the surface oxidised component is contacted with an aqueous solution containing 10⁻⁵-10⁻³ mol/l zirconium and/or titanium, present in the form of an organic complex compound preferably with EDTA and optionally acetylacetone, to form an up to 1 µ thick zirconium and/or titanium oxide layer. Also claimed is a coated component, especially of austenitic steel, produced by the above method.

ADVANTAGE - The method allows simple and reliable formation of the foreign oxide layer, which reduces stress corrosion cracking of metal components in high temperature water, the oxidised surface providing improved adhesion of the foreign oxide layer.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS:

CORROSION PROTECT COATING NUCLEAR PLANT COMPONENT SURFACE OXIDATION APPLY

FOREIGN OXIDE LAYER

DERWENT-CLASS: K05 M14 X14

CPI-CODES: K05-B; M14-D01; M14-K;

EPI-CODES: X14-C;

UNLINKED-DERWENT-REGISTRY-NUMBERS: 0195U; 1047U ; 1521U ; 1966U

SECONDARY-ACC-NO:

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